As the Central Institute of Fisheries Technology celebrates its golden jubilee, our reporter Babu K Peter brings to you its glorious achievements

This is the golden jubilee year for the Central Institute of Fisheries Technology (CIFT) which has become famous for its pre and post harvesting technology. The country, especially Kerala, has gained a lot from the technologies being developed at CIFT in the field of fishing, processing, packaging, product development, quality assurance, fishery by products, fish waste utilization etc. The institute is renowned for its high calibre and innovative research activities, training, participation and entrepreneurship promotion.

Headquartered at Willington Island, the institute has research centres at Vizhinjam, Alappuzha, Kerala and Mumbai. CIFT is the only national centre in the country where research in all disciplines related to fishing and fish processing is undertaken. It also forms the existence as an epitome in the realms of Indian fishery sector.

Boosting pre and post harvest sectors

Over the years, CIFT has come up with a wide range of harvest and post-harvest sectors. The institute's initiatives are conducive to the adoption of improved methods of processing, preservation, dryness, and making operations efficient. It has also brought in improved methods of fish curing, fish processing, fish-based value-added products, fish waste utilization and packaging; and also sanitary and hygiene standards based on microbiological and biochemical quality parameters and HACCP.

The technologies developed range from designing of boats to preservation of feed for cattle, pig and poultry from fishery waste and some products required in medical field. Most equipment required for processing are also developed by the scientists at the institute. Separation of cholinesterase in fish, a product used in the treatment of arthritis, from fish bones and cartilage is a major achievement of the institute. CIFT also has its credit in the development of sucrifi chicory-based hydro-alcoholic hand sanitizer for fish processing industry workers.

Trawling through history

The Central Institute of Fisheries Technology (CIFT) under the Indian Council of Agricultural Research was set up following recommendations of a high power committee constituted by the Ministry of Food and Agriculture in 1957. The Processing Division of the institute began in 1958 and the Extension, Information and Statistics Division in 1961. The institute was given its present name in 1962, the headquarters of the institute was shifted to Kochi in 1969 and the administrative control was brought under the ICAR in October 1, 1967. "ICAR-CIFT has been developing craft, gear and fishing methods for both the marine and inland sectors, with the emphasis being on resource conservation and sustainability besides increasing the productivity "80% of the mechanized wooden crafts in the country are built based on 12 standard designs in the size range of 7.6 m to 15.2 m developed by the institute," said C N Ravisanikar, director, CIFT. CIFT was instrumental in introducing steel and fibre reinforced plastic (FRP) as boat building materials by providing suitable designs for fishing canoes and vessels. It also standardised netting, netting yarn and twine.

It developed fishing gear and methods for traditional, traditional modernized and also small scale mechanized sectors. "Ring winches were introduced in Kerala by the institute and today it is the most widely used gear in traditional sector. Large mesh patterns were also introduced and it has seen 100% adoption in the state. Other gears include specific species per net, semi-pelagic trawls and traps. Resource conservation efforts include development of bycatch, juvenile reduction devices, V-form otter boards," Ravisanikar pointed out.

Specific developments

Specific developments include square mesh end, new part of MIARAs of various states, Juvenile Fish and Shrimp Sorting Device (UFSBD), CIFT-Turle Excluder Device (TURLED) and others.

The institute is active in conservation efforts through popularisation of the technology in partnership with other organizations like NADF (MPEDA). WWF and other NGOs. It is also partnering with Indian National Centre For Ocean Information Services (INCOOS) in efforts to identify PZMs to aid fishermen in locating fish schools that help in reducing scouting time and reduced fuel use and in documenting traditional knowledge along the Kerala coast.

"Future efforts by the institute will also focus on developing suitable and improved systems for the various sectors of the fishing industry with a stress on fuel saving and good technologies," said Ravisanikar.

In the post harvest sector, the institute focusses on complete utilisation of resources and includes in its ambit handling and preservation of the catch, value addition, waste management and quality assurance.

Developing value added products

The institute is also engaged in developing value added products (including ready-to-cook and eat products), by products (including high-value ones) from fish and shell fish and developing appropriate packaging for the same. Technology is also transferred to stakeholders and interested entrepreneurs, a recent example being products launched and marketed in Kerala by Vizhinjam Foods. It has given technical help in establishing and modernising fish markets which has been taken up by state agencies through NPDF funding. "The institute which played a significant role in establishing the seafood processing sector in Kerala, conducts regular skill development programmes in value addition, improved drying and handling practices for traditional fishermen," Ravisanikar said.

Business incubation

The institute became a pioneer among the fisheries institutions under ICAR after it launched a Business Incubation Unit for entrepreneurs and startups in the fisheries sector. It also has a well-equipped pilot plant with state-of-the-art process lines for trial production.

At the incubation unit, entrepreneurs get shared office space, conference hall with facility for video conferences besides guidelines from scientists. Beneficiaries only need to pay a minimal fee to use the facilities. Once the entrepreneurs attain confidence to carry the market, CIFT helps them design the factory also. Even if the business fails, the investors will not have to face a huge loss since they didn't have to cough huge sums for technical support.

SEVEN MAJOR DIVISIONS OF CIFT

- Fishing technology division
- Fish processing division
- Quality assurance and management division
- Bio chemistry and nutrition division
- Microbiology, fermentation, and biotechnology division
- Engineering division
- Extension, information and statistics division

C N Ravisanikar, director, CIFT